

Mini-Sensors for Hydraulics
Simple to integrate



more added value



Inductive Sensors

DC 3-wire, M8, s_n 1.5 mm

BALLUFF

sensors worldwide

more added value

- Simple integration in hydraulic actuators
- Miniaturization – new possibilities for function monitoring

The M12 style has established itself for position monitoring on hydraulic cylinders and valves.

Hydraulics means large forces with reduced space requirements. Profit from high-pressure rated M8 sensors where space is at a premium.

Applications:

Miniaturized hydraulic

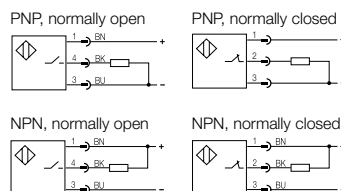
- Power units
- Valves
- Block cylinders



Housing size	M8 x 1	M8 x 1
Mounting	flush	flush
Rated operating distance s_n	1.5 mm	1.5 mm
Assured operating distance s_a	0...1.2 mm	0...1.2 mm
PNP Normally open	Ordering code BHS0050	BHS0054
	Part number BHS A402N-PSC15-S49	BHS A404N-PSC15-S49
PNP Normally closed	Ordering code BHS004Z	BHS0053
	Part number BHS A402N-POC15-S49	BHS A404N-POC15-S49
NPN Normally open	Ordering code BHS004Y	BHS0052
	Part number BHS A402N-NSC15-S49	BHS A404N-NSC15-S49
NPN Normally closed	Ordering code BHS004W	BHS0051
	Part number BHS A402N-NOC15-S49	BHS A404N-NOC15-S49
Supply voltage U_b	10...30 V DC	10...30 V DC
Voltage drop U_d at I_b	≤ 2.5 V	≤ 2.5 V
Rated insulation voltage U_i	75 V DC	75 V DC
Rated operating current I_b	100 mA	100 mA
No-load current I_0 max.	≤ 10 mA	≤ 10 mA
Reverse polarity protected	yes	yes
Short circuit protected	yes	yes
Repeat accuracy R	≤ 5 %	≤ 5 %
Ambient temperature range T_a	-25...+80 °C	-25...+80 °C
Switching frequency f	4000 Hz	4000 Hz
Utilization category	DC 13	DC 13
Function indicator	yes	yes
Degree of protection per IEC 60529	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
Housing material	Stainless steel	Stainless steel
Material of sensing face	Ceramic	Ceramic
Connection	Connector	Connector
Approval	cULus	cULus
Recommended connectors	BCC02M8 straight/ BCC02ML right-angle M8 female, 2 m PUR, 3-pole	BCC02M8 straight/ BCC02ML right-angle M8 female, 2 m PUR, 3-pole
O-Ring/spare part number	4 x 1.5/154149	4 x 1.5/154149
Support ring/spare part number	6.5x1.1x1/154150	6.5x1.1x1/154150
High pressure rated to	350 bar	350 bar

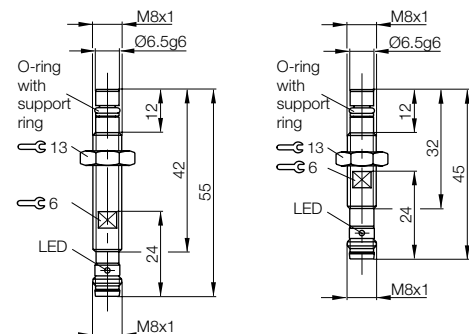
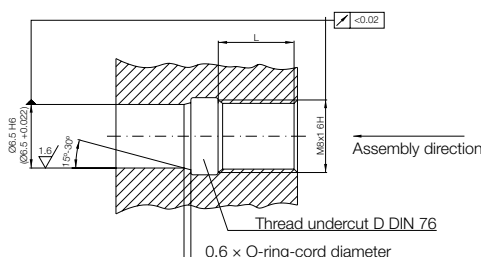
Cable versions and M5 styles on request.

Wiring diagrams



Installation note

L: Recommended insertion depth
 $L \geq 0.8 \times \text{thread diameter}$
 $= 0.8 \times 8 = \geq 6.4$ mm



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